

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)***(Only for new nonprovisional applications under 37 CFR 1.53(b))*Docket No.  
Army156ATotal Pages in this Submission  
136**TO THE COMMISSIONER FOR PATENTS**Mail Stop Patent Application  
P.O. Box 1450  
Alexandria, VA 22313-1450

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**MULTIVALENT DENGUE VIRUS VACCINE**

and invented by:

**ECKELS, Kenneth**  
**PUTNAK, Joseph**  
**DUBOIS, Doria**  
**INNIS, Bruce**  
**HOKE, Charles**  
**SUN, Wellington****KANESA-THASAN, Niranjan**15535 U.S. PTO  
10/626315  
07/24/03If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 09/535,117(3/24/00)

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Enclosed are:

**Application Elements**

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 87 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications *(if applicable)*
  - c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*
  - d. ☒ Reference to Sequence Listing, a Table, or a Computer Program Listing Appendix
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings *(if filed)*
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

Docket No.  
Army156A

Total Pages in this Submission  
136

**Application Elements (Continued)**

3. ☒ Drawing(s) *(when necessary as prescribed by 35 USC 113)*
- a. ☒ Formal                      Number of Sheets                      11
- b. ☐ Informal                      Number of Sheets                      \_\_\_\_\_
4. ☒ Oath or Declaration
- a. ☐ Newly executed *(original or copy)*                      ☐ Unexecuted
- b. ☒ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*
- c. ☐ With Power of Attorney                      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☒ Incorporation By Reference *(usable if Box 4b is checked)*  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ CD ROM or CD-R in duplicate, large table or Computer Program (Appendix)
7. ☐ Application Data Sheet (See 37 CFR 1.76)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*
- a. ☐ Computer Readable Form (CRF)
- b. ☐ Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statement(s) Verifying Identical Paper and Computer Readable Copy

**Accompanying Application Parts**

9. ☐ Assignment Papers *(cover sheet & document(s))*
10. ☐ 37 CFR 3.73(B) Statement *(when there is an assignee)*
11. ☐ English Translation Document *(if applicable)*
12. ☒ Information Disclosure Statement/PTO-1449                      ☐ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. ☒ Certificate of Mailing
- ☐ First Class                      ☒ Express Mail *(Specify Label No.):* EU473900465US

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

Docket No.  
Army156A

Total Pages in this Submission  
136

**Accompanying Application Parts (Continued)**

17. ☒ Additional Enclosures *(please identify below)*:

Claim for Priority; Statement Pursuant to 37 CFR 1.198(d); Communication Regarding Certain Co-Pending US Applications

**Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)**

18. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

**Warning**

***An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.***

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

Docket No.  
Army156A

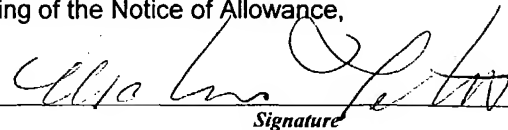
Total Pages in this Submission  
136

**Fee Calculation and Transmittal**

**CLAIMS AS FILED**

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	8	- 20 =	0	x \$18.00	\$0.00
Ind p. Claims	1	- 3 =	0	x \$84.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$750.00
OTHER FEE (specify purpose)					\$0.00
TOTAL FILING FEE					\$750.00

- ☐ A check in the amount of \_\_\_\_\_ to cover the filing fee is enclosed.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. 21-0380 as described below.
- ☒ Charge the amount of \$750.00 as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

  
Signature

Marlana Titus, Reg. No. 35,843  
for Elizabeth Arwine, Reg. No. 45,867  
Attorney for applicant  
U.S. Army Medical Research and Materiel Command  
504 Scott St.  
Ft. Detrick, MD 21702-5012  
(301) 762-8214

Dated: July 24, 2003

cc:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of  
Eckels et al.

Group Art Unit: not known

Serial No: not known  
Divisional app. of Serial No.: 09/535,117

Examiner: not known

Filed: July 24, 2003

FOR: Live-Attenuated Multivalent Dengue Vaccine

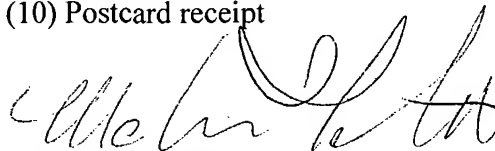
\* \* \* \* \*

July 24, 2003

CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 C.F.R. 1.10)

I hereby certify that the following correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, on **July 24, 2003**:

(1) Utility Patent Application Transmittal Letter (large entity, in duplicate); (2) U.S. utility divisional application, including specification, claims and drawings; (3) Claim for Priority; (4) Communication Regarding Certain Co-Pending U.S. Applications; (5) Statement Pursuant to 37 CFR 1.198(d); (6) Preliminary Amendment; (7) Information Disclosure Statement; (8) PTO-1449 form; (9) Copy of executed Declaration from parent case 09/535,117; (10) Postcard receipt



Marlana K. Titus  
Nash & Titus, LLC  
Reg. No. 35,843  
3415 Brookeville Road  
Suite 1000  
Brookeville, MD 20833  
(301) 762-8214

Express Mail Mailing Label Number: EU473900465US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re PATENT APPLICATION of  
Eckels et al.

Group Art Unit: not known

Serial No: not known  
Divisional app. of Serial No.: 09/535,117

Examiner: not known

Filed: July 24, 2003

FOR: Live-Attenuated Multivalent Dengue Vaccine

\* \* \* \* \*

July 24, 2003

**COMMUNICATION REGARDING CERTAIN CO-PENDING U.S. APPLICATIONS**

Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

In connection with the above-identified application, Applicants wish to bring to the Examiner's attention the following U.S. co-pending applications, sharing common ownership with the subject application:

Serial No. 09/535,116 (filed 3-24-00)  
Serial No. 09/534,684 (filed 3-24-00)  
Serial No. 09/534,724 (filed 3-24-00)  
Serial No. 09/535,117 (filed 3-24-00)  
Serial No. 09/534,725 (filed 3-24-00)  
Serial No. 09/534,726 (filed 3-24-00)  
Serial No. 10/081,960 (filed 2-22-02)

By: \_\_\_\_\_



Marlana K. Titus, Reg. No. 35,843  
for: Elizabeth Arwine, Reg. No. 45,867  
Attorney for Applicants  
U.S. Army Medical Research  
and Materiel Command  
504 Scott St., ATTN: MCMR-JA  
Fort Detrick, MD 21702-5012  
(301) 762-8214